

WHAT IS CLAIMED IS:

1. A bridge circuit in a computer system for providing data transfers between a processor and a peripheral device, comprising:

a first buffer in communication with a processor and a peripheral device;

5 a second buffer in communication with said processor, said peripheral device and said first buffer;

control logic for controlling said first buffer and said second buffer as a matched pair so that an address held in said first buffer corresponds to data held in said second buffer; and

10 an arbiter for controlling concurrent bi-directional data flow between said processor and said peripheral device through said second buffer.